REMARKS

This Application has been carefully reviewed in light of the Office Action mailed January 7, 2009. At the time of the Office Action, Claims 33-41 were pending in this Application. Claims 33-41 were rejected. Claims 1-32 were previously cancelled without prejudice or disclaimer. Applicants respectfully request reconsideration and favorable action in this case.

Specification

The specification was objected to as containing an embedded hyperlink. In response, Applicants have amended the specification to make it clear that the applicant does not intend to have an active hyperlink in the application, but rather, the Internet address is merely provided as an example of an address on the Internet. According to the MPEP,

> Examiners should not object to hyperlinks where the hyperlinks and/or browser-executable codes themselves (rather than the contents of the site to which the hyperlinks are directed) are necessary to be included in the patent application in order to meet the requirements of 35 U.S.C. 112, first paragraph, and applicant does not intend to have those hyperlinks be active links.

MPEP 608.01. Thus, the specification is not objectionable because the Internet address does not attempt to incorporate information by reference and is merely an example of an address on the Internet for purposes of giving context to the invention.

Rejections under 35 U.S.C. §103

Claims 33-34 and 36-39 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0221156 by Harvey L. Berger et al. ("*Berger*") in view of Datta et al. (Pub. No. 20040001428) ("*Datta*"). Applicants respectfully traverse and submit the cited art, even if proper, which Applicants do not concede, does not render the claimed embodiment of the invention obvious.

Claims 35 and 40-41 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Berger* and *Datta* in further view of U.S. Patent No. 7,133,688 issued to Arnab Das et al.

("*Das*"). Applicants respectfully traverse and submit the cited art combinations, even if proper, which Applicants do not concede, do not render the claimed embodiment of the invention obvious.

In order to establish a prima facie case of obviousness, the references cited by the Examiner must disclose all claimed limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Even if each limitation is disclosed in a combination of references, however, a claim composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). Rather, the Examiner must identify an apparent reason to combine the known elements in the fashion claimed. *Id.* "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.*, citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Finally, the reason must be free of the distortion caused by hindsight bias and may not rely on ex post reasoning. *KSR*, 127 S.Ct. at 1742. In addition, evidence that such a combination was uniquely challenging or difficult tends to show that a claim was not obvious. *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc. and Mattel, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007), citing *KSR*, 127 S.Ct. at 1741.

The Office Action again correctly states that "Berger fails to disclose configuring the dotted pattern that 8 of 48 bits of the data block are dotted, and the 8 to 48 bits of the data block are bits 1, 2, 4, 8, 42, 45, 47 and 48." However, the Office Action alleges that "Datta teaches the puncture routines (e.g. page 1 paragraph 17)," and concludes that it would have been obvious to a person or ordinary skill in the art at the time the invention was made to understand a puncture/dotting pattern is a technique for coding data to transmit in a high speed shared channel. Applicant respectfully disagrees.

Claim 33 expressly recites, "configuring the punctured pattern that 8 of 48 bits of the data block are punctured, and the 8 of 48 bits of the data block are bits 1, 2, 4, 8, 42, 45, 47 and 48." Similarly, Claim 36 recites, "the rate adjustment device is configured such that the rate adjustment is carried out on the basis of a puncturing pattern or a repetition pattern

which dots 8 of 48 bits of the data block, and the 8 of 48 bits of the data block are bits 1, 2, 4, 8, 42, 45, 47 and 48."

The present application is directed to a method of puncturing only certain selected bits, rather than a random puncturing of bits. The specification particularly states on page 14, lines 17-21:

> There are now very many options for how individual bits can be punctured. If for example one wishes, as already stated previously, to investigate all the possible options for puncturing 48 bits to 40 bits, this would be 48!/(8!*40!) = 377348994 different options, which cannot all be investigated within a reasonable time.

The object of the invention to provide for an optimized scheme of puncturing. *See*, specification, page 14, lines 22-24. The specification further states on page 17, line 25 to page 18, line 8:

> By contrast with methods in which the puncturing rate constantly increases up to the ends, this leads to a result which is not expected per se, since one would expect that the reliability of the coded bits constantly decreases towards the ends. a closer examination for the convolutional encoders used however shows that this assumption is surprisingly not true. The specific characteristics of the polynomials produce coded bits, particularly at the ends, which contribute less effectively to the coding. These bits however do not occur up to the end in constantly increasing volumes, but are somewhat irregularly distributed. By aligning the puncturing patterns specifically to these "weak" bits, that is by giving preference to puncturing these bits, one can improve the coding even further.

The specific puncture patterns claimed in claims 33 and 36 align the puncturing patterns specifically to the "weak" bits so that the coding is improved. The specification particularly explained why the claimed puncture patterns is beneficial. In particular, Figure 10 of the specification shows the pattern selection according to claim 33 which shows the improvement over the conventional patterns shown in Figure 6. Similarly, Figure 2 of the specification shows the pattern selection according to claim 34 which shows the improvement over the conventional patterns shown in Figure 3. Figure 4 shows the respective improvement *See also*, specification, page 20, line 1 to page 21, line 15.

The claimed puncture patterns are not obvious in view of the cited prior art. Regarding Berger, the Office Action again correctly states that "Berger fails to disclose configuring the dotted pattern that 8 of 48 bits of the data block are dotted, and the 8 to 48 bits of the data block are bits 1, 2, 4, 8, 42, 45, 47 and 48." OA at 2. Berger gives a specific example of which bits can be deleted. *See, Berger* paragraph [0034]. In Table 1, *Berger* teaches to puncture the last bits (10-16) of an inner block. Even though *Berger* states that any bit may be deleted, *Berger* does not teach that a specific selection of bits is advantageous over another selection. *See, Berger* paragraph [0036], lines 12-13.

Regarding Datta, Datta is not a prior art reference. Datta is a U.S. patent application filed on April 8, 2003 that claims priority to a provisional application filed on July 1, 2002. Even if we were to assume Datta's priority claim is legitimate, which Applicants do not concede, at best Datta's application data is July 1, 2002 for purposes of 35 U.S.C. § 102(e).

The present application is a §371 application of a PCT application filed on April 1, 2003 and claiming priority to two German applications filed April 8, 2002 and April 29, 2002. Under 35 U.S.C. § 365 (b) "an international application designating the United States shall be entitled to the right of priority based on a prior foreign application." Certified copies of the priority documents were filed with the USPTO on February 2, 2005. Thus, the present application is entitled to the right of priority based on the German applications filed April 8, 2002 and April 29, 2002.

Because April 8, 2002 and April 29, 2002, the priority dates claimed by the present application, are earlier in time than July 1, 2002, Datta's earliest application date, Datta does not qualify as prior art under 35 U.S.C. §§ 102 and 103.

Therefore the invention as claimed in claims 32 and 26 is patentable in view of the cited prior art. The invention as claimed in the dependent claims is patentable for similar reasons.

In summary, Applicant believes that all pending independent claims are non-obvious over the prior art. Applicants respectfully submit that the dependent Claims are allowable at least to the extent of the independent Claim to which they refer, respectively. Thus, Applicants respectfully request reconsideration and allowance of the dependent Claims. Applicants reserve the right to make further arguments regarding the Examiner's rejections

under 35 U.S.C. §103(a), if necessary, and do not concede that the Examiner's proposed combinations are proper.

Information Disclosure Statement

Applicants enclose an Information Disclosure Statement and PTO-Form 1449, with copies of the references. The Commissioner is authorized to charge the fee of $180.00 required to Deposit Account 50-4871 of King & Spalding LLP in order to effectuate this filing.

Association of Customer Number and Change of Correspondence Address

Applicants respectfully request that all papers pertaining to the above-captioned patent application be associated with Customer No. **86528**, and direct all correspondence pertaining to this patent application to practitioners at Customer No. **86528**. All telephone calls should be directed to William Beard at 512.457.2026.

CONCLUSION

Applicants have made an earnest effort to place this case in condition for allowance in light of the remarks set forth above. Applicants respectfully request reconsideration of the pending claims.

Applicants respectfully submit a Petition for One-Month Extension of Time. The Commissioner is authorized to charge the fee of $130.00 required to Deposit Account 50-4871 of King & Spalding LLP in order to effectuate this filing.

Applicants believe there are no further fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-4871.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512.457.2026.

Respectfully submitted,
KING & SPALDING L.L.P.
Attorneys for Applicants

R. William Beard, Jr.
Registration No. 39,903

Date: May 4, 2009

SEND CORRESPONDENCE TO:
KING & SPALDING L.L.P.
CUSTOMER ACCOUNT NO.
512.457.2026
512.457.2100 (fax)